



Air and Waste Matters

DNREC Division of Air and Waste Management

This newsletter is **FREE!** Please sign up to receive it at:
<http://www.dnrec.state.de.us/DNREC2000/admin/maillists/maillists.htm>.

No forms to fill out; done in 3 clicks!

Volume I, Issue 8

April 2008

Highlights in this edition include:

DNREC Emer- 2
gency Response
Team—Ready
24/7 *Continued...*

Environmental 3
Emergency?
Call DNREC!

Environmental 4
Crime and
Punishment

The Challenge 5
of Steel
Recycling

New Brandywine 6
Hundred Yard
Waste Site
Opens

Community 7
Composting on
Caney Road

More 8
Information on
the Division

DNREC Emergency Response Team—Ready 24/7

It's 3 a.m., the phone rings in dispatch, and DNREC's Emergency Response Team (ERT) is called out into the cold night to assess and mitigate a tractor-trailer overturned on Rt. 13. The tractor-trailer has leaked diesel fuel on the highway and is carrying hazardous materials as cargo. This is the kind of work DNREC ERT does year-round.

The dedicated and highly-trained DNREC ERT team includes three full-time environmental scientists, twelve enforcement officers, seven volunteer environmental scientists and engineers, a program manager and a tireless administrative support specialist. These individuals form the critical hazardous materials and weapons of mass destruction response component of the State of Delaware's State Emergency Response Team (SERT).

The SERT is coordinated by the Delaware Emergency Management Agency and includes partnerships with local fire departments and the Delaware State Fire School, Delaware State Police, Division of Public Health, and County Emergency Management Agencies.

The DNREC ERT is

charged with the protection of human health, welfare and the environment, and must respond at a moment's notice. Fortunately, the ERT has some very impressive equipment to assist them in accomplishing this charge.

The DNREC ERT has 20 response road vehicles, including fully-equipped Hazardous Materials Response (HazMat) Units, capable of mobilizing equipment and personnel within 15 minutes of dispatch; a HazMat trailer; an all-terrain vehicle for beach and off-road access; a Mobile Command Post; and several light-duty support vehicles.

The DNREC ERT also has a 21-foot Boston Whaler and a 17-foot shallow water boat. It is the ERT's goal to have

(Continued on page 2)



ERT Responds to Anhydrous Ammonia Spill at Ice Rink

DNREC Emergency Response Team—Ready 24/7 *Continued...*

state-of-the-art monitoring technology to validate field results. These tools require an immense amount of funding, training and interpretation.



ERT/Fire Companies Complete HazMat Training

In addition, equipment to monitor for radiation, biological and chemical warfare agents and toxic industrial chemicals is stowed on the three primary HazMat response trucks with an approximate value of \$650,000 per truck. The ERT could not perform its many assigned duties if not for the local partnerships and private industry.

The DNREC ERT has partnered with fire companies to strategically locate a petroleum response trailer in each county. New Castle County's unit, "HazMat 30," is a heavy HazMat tractor-trailer operated by Belvedere Volunteer Fire Company that supports petroleum spills and the New Castle County Industrial Hazardous Materials Response Alliance. The Alliance is a 55-person team including chemists, technicians, and safety engineers assembled by 12 sponsoring Delaware companies, to support DNREC ERT hazardous materials emergency responses.

Other response partners include the Millsboro Fire Company, which operates "HazMat 83," a petroleum response trailer owned by the fire company and stocked by the ERT. "HazMat 48" is a petroleum response trailer owned by the ERT and operated by the Felton Community Fire

Company. Decontamination units are also located in each county and operated by the Elsmere Fire Company, Little Creek Fire Company and the Sussex County Paramedics.

In addition, members of the ERT have been training with the Delaware State Police Explosive Ordinance Disposal Unit over the last three years. It is the ERT's responsibility to function as the science officer when evaluating incidents which may involve "dirty bombs" for the protection of the bomb technician and the public. The ERT assists in the evaluation of unidentified chemicals, gathers air monitoring data from ERT instruments mounted on an Explosive Ordnance Disposal robot, and recommends chemical protective clothing for the bomb technician. The ERT also pre-stages at large public events (e.g., NASCAR and other events), which have a high potential threat value.

With a diverse group of experts, strategic partners, state-of-the art training, and the best equipment available, the DNREC ERT stands ready 24/7 to protect public health, welfare and the environment.

Article by J. Bethard, EPRB



ERT/Coast Guard Deploy Booms for Mystras Oil Spill

Environmental Emergency? Call DNREC!

DNREC instituted a toll free 800 line in the 1970s for callers reporting environmental incidents throughout Delaware. After-hours calls are answered by the Delaware State Police Kent County 911 Center providing 24/7 coverage and dispatch service. However, it is the Division's Environmental Crimes Unit enforcement officers and/or Emergency Response Team, who respond to the release notifications and complaints.

In the early years, complaints came in by the hundreds. Now thousands of people call the 800 number every year reporting information on various violations. From persons illegally burning or dumping solid waste to major oil spills in the Delaware Bay and its tributaries, there are no "routine" calls for responses to the complaint line. Since 1991, enforcement officers have investigated over 96,000 complaints and release notifications. The enforcement officers have been assaulted (including bitten!) in the line of duty, and have apprehended numerous fugitives wanted in other police jurisdictions.

The New Castle and Sussex 911 Centers also use the 800 number to activate the DNREC Emergency Response Team. DNREC's enforcement officers

conduct scores of public outreach programs each year to request the public's help in reporting potential violations. With a total of twelve officers patrolling the state and responding to environmental complaints and emergencies, public awareness has become a key component of enforcement. The 800 number is also posted on gas pumps in Delaware for timely notification in event of a fuel spill.

Finally, the 800 number serves as the primary contact for reports from the regulated community that are required by the Delaware Environmental Release Notification System (DERNS-see below). The public's willingness to report concerns via the 800 number makes this a vital component of DNREC's mandate to protect human health, welfare and the environment.

Article D. Alderucci, ECU

**Delaware DNREC Emergency Response
Complaints, Spills, Releases
(800) 662-8802
(302) 739-9401, or #DNR for Verizon
Wireless Customers**

Delaware Environmental Release Notification System (DERNS)

DNREC developed DERNS in 2001 to alert citizens to releases or discharges of contaminants or pollutants that meet or exceed certain thresholds in their neighborhoods or throughout the state. DERNS is **not** an emergency notification system. With DERNS, registrants are notified within **24 hours** of DNREC receiving a report when there is a release or discharge that meets reportable quantities in a geographic area. The releases reported may include foul-smelling air emissions or oil spills. Usually, releases reported through DERNS do not threaten public safety. Information about these releases will also be posted on the DNREC website. In the event of an emergency that requires immediate public notification, the Delaware Emergency Management Agency (DEMA) would activate the Delaware Emergency Notification System (DENS).

When registering for DERNS, you may choose to be notified in **one** of three ways: by phone, by e-mail or by FAX. You can also choose to be notified about releases from specific facilities or about all releases that occur in one or more zip codes throughout the state. To register for DERNS, please visit: <http://www.dnrec.delaware.gov/services/Pages/DERNS.aspx>.

Environmental Crime and Punishment

Delaware may be a small state, but it is certainly a leader in the nation when it comes to environmental law enforcement. Unlike most other states, Delaware has sworn police officers, called enforcement officers, in the Division's Environmental Crimes Unit that investigate environmental complaints. Many states do not have the luxury of an environmental crimes unit. Instead, the states rely on civilians to investigate allegations of pollution and hope for compliance from the suspected individual or facility. In addition, once the investigation has been completed, the investigator works with the state's Attorney General's office in a process that can take months to years to resolve.

Delaware's sworn police officers in the Division's Environmental Crimes Unit investigate environmental complaints. This is a great tool for deterrence and compliance. The deterrence aspect comes into play when a violator becomes aware that the state has "environmental cops." The person thinking about committing an unlawful environmental act has probably seen the uniformed officers and knows that they are out there, patrolling, and may think twice about committing an unlawful act. From a compliance aspect, a convicted environmental criminal knows that the state means business when it comes to environmental issues. They are not likely to take a chance on additional environmental violator charges and resulting second offense penalties.

There are several ways for DNREC to handle environmental violations in Delaware. They are either through criminal arrest, or administrative or civil penalties. A criminal arrest occurs when an officer investigates a complaint and determines a violation exists. The officer either issues a criminal summons or obtains an arrest warrant issued by a Justice of the Peace Court. Once an officer makes an arrest, that arrest appears on the violator's criminal record. Therefore, the officer must carefully interpret the statute before making a decision that could affect a personal or company record. The officer may also issue a

criminal mail-in summons, much like a traffic ticket, that has a monetary penalty associated with it. The penalty for JP Court violations run from \$50 to \$1,500.

If the officer determines that the defendant intended to commit the act and the violations have significant environmental impact, then the case can be brought to Superior Court with a maximum penalty of \$25,000. All Superior Court cases are processed by the Office of the Attorney General. In cases where environmental felonies cause serious physical injury or serious harm to the environment, a prison sentence of up to eight years, or a fine upwards to \$500,000 can result.

The second process for handling environmental violations is by means of administrative action. DNREC established an Enforcement Panel made up of members within the agency and a Deputy Attorney General to hear cases or investigations that have been completed either by our enforcement officers or DNREC employees. The Enforcement Panel meets on an established schedule to hear the cases and recommended penalties. The Enforcement Panel's decision and recommended action is then forwarded to the Department Secretary for consideration. These penalties can be of significant monetary value and can have additional ramifications such as permit suspension and revocation.

The third means of handling environmental violations is when DNREC, in concurrence with the Attorney General's office, files a civil action against the violator in Superior Court. The penalties for civil violations range from \$1,000 to \$10,000 per day. The Department's legislative agenda this year includes an increase in penalties for first offenses. This would be the first increase since Chapter 60 was adopted in 1972.

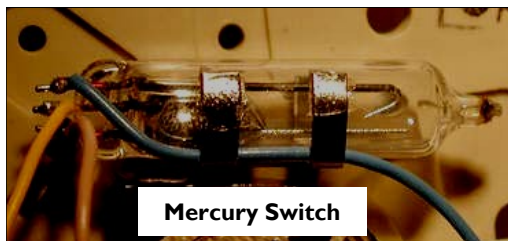
Article by M. Cook, ECU



The Challenge of Steel Recycling

Last year, DNREC learned that the amount of mercury released from Claymont Steel was several times higher than previously estimated. DNREC's Division of Air and Waste Management took rapid enforcement action through an Administrative Order requiring the mercury be reduced or controlled. Claymont Steel also responded quickly, resulting in significant reductions in the mercury releases before the deadline imposed by DNREC's Order.

The mercury emissions from Claymont Steel are typical of "electric arc furnace" steel recycling plants because they often take large amounts of steel scrap from old cars and washing machines,



which contain mercury switches (e.g., those in car trunks and hoods that detect motion). The steel plant has generally been Delaware's third-ranked source of mercury after the Delaware City Oxy-Chem chlorine plant and the coal-burning electric power plant near Indian River and Edgemoor. With the closure of OxyChem and the new regulations controlling mercury from power plants, the steel plant became the focus of attention.

Mercury control is critical in Delaware because of our downwind, water-bounded location. We are downwind of the many large coal-fired power plants in the Ohio River valley (PA, OH, KY, IN, IL and MO). Mercury is a natural part of coal. When the coal is burned, the mercury is volatilized and goes into the air. It is either captured in an air pollution control system or goes out the stack where rain eventually brings it back to Earth and into our water bodies.

Mercury is a serious persistent neurotoxin that largely becomes a problem after it is deposited in

water and settles in bottom sediments where it undergoes a chemical transformation into an organic form (methyl mercury), which is then incorporated and magnified up the food chain, resulting in unhealthy concentrations in certain fish at the top of the food chain like tuna and swordfish.

By immediately eliminating the use of municipal solid waste scrap and by reducing the amount of mercury-containing scrap that they buy, Claymont Steel was able to cut mercury emissions by approximately 50%. That's good, but not good enough to meet our strict requirements of 35 milligrams/ton, which is a 90% reduction. The challenge is how to achieve further reductions.

One option is to install a carbon injection system similar to those now used successfully to control mercury from coal-fired power plants. However, the mercury does not go away, it is simply removed as an air emission and put into the solid waste stream, like bag house dust. The dust collected in the air pollution control "bag house" is already defined legally as a hazardous waste; in 2005, 5,813 tons were shipped to Horsehead Corporation's zinc recovery plant in Palmerton, PA. The problem is that mercury contained in the dust processed there would likely be emitted into the air and return to Delaware in the wind or run downstream, because there are no federal standards controlling mercury from zinc plants.

Therefore, the mercury emissions from Claymont Steel would be reduced, only to reappear from another source. Mercury is truly a global, not a local, problem with a significant amount of the mercury entering Delaware air and water from coal-fired power plants coming as far away as the Mid-west, or California and even China. How we attack the chain of mercury contamination at our state's only steel recycling plant remains unclear, but DNREC will continue to look at the overall picture to ensure the maximum protection for Delawareans.

Article by J. Werner, Director, DAWM

New Brandywine Hundred Yard Waste Site Opens

The Brandywine Hundred Community Yard Waste Demonstration Site opened in February for residential yard waste, including all plant materials resulting from lawn maintenance and landscaping activities. The new site, located on Cauffiel Parkway near Philadelphia Pike (Business Route 13), serves as a cost-free and convenient option for residents to comply with the northern New Castle County yard waste ban, which went into effect on Jan. 24.

The Brandywine Hundred site is open every Friday, Saturday and Sunday from 8:30 a.m. until 4:30 p.m. and is for use by New Castle County residents only. Commercial businesses, such as landscaping and lawn care companies, as well as municipalities use other means for recycling large quantities of yard waste. Only loose material can be left; plastic bags and other containers must be emptied and removed from the site.

The yard waste will be periodically ground into useable landscape mulch, and New Castle County residents can pick up free mulch when it is available. Yard waste makes up a large percentage of the residential waste that goes into landfills. These organic materials include grass clippings, leaves, prunings, brush, shrubs, garden materials, Christmas trees and tree limbs up to four inches in diameter. Keeping yard waste out of landfills by recycling and composting extends the life of the landfill, reduces greenhouse gas emissions, and promotes sustainability.

The Cherry Island Landfill ban on yard waste prohibits all yard waste materials from entering that landfill. Residents should dispose of yard waste through an alternative method – drop it off at one of DNREC's free yard waste drop-off sites; use a mulching mower or compost it; have it hauled away by a private hauler, landscaper, or the Delaware Solid Waste Authority for recycling; or take it to one of the commercial facilities available in New Castle County.



**Brandywine Hundred Community Yard Waste Site
Across from Cauffiel Estate**

In July 2007, DNREC opened the DART Mid-County Community Yard Waste Demonstration Site at the southwest corner of U.S. Rt. 13 and Rt. 72 near Bear. In early November, another site, the Polly Drummond Hill Community Yard Waste Demonstration Site, on Polly Drummond Hill Road ½ mile north of Kirkwood Highway and directly across from the Judge Morris Estate, was opened. These sites are open daily from 8:30 a.m. until 4:30 p.m.

For more information on yard waste drop-off sites, recycling alternatives, and the yard waste ban affecting northern New Castle County, please visit DNREC's web site, www.dnrec.delaware.gov or contact Jim Short or Bill Miller at (302) 739-9403, or by e-mail at James.Short@state.de.us or Bill.Miller@state.de.us.

From W. Miller, SHWMB and DNREC Press Release 2/13/08

Community Composting on Caney Road

Several neighbors on Caney Road in North Graylyn Crest have been working together to compost their yard waste in their own back yards well before the Cherry Island Landfill yard waste ban went into effect on Jan. 24. Sarah McIlvaine started composting her leaves, grass, and table scraps over two years ago. "I started with a small pile in my backyard and it kind of took off from there. The only problem I had was that I didn't have enough brown material. My children helped by shredding newspapers and cardboard cereal boxes into little squares but that was a lot of work."

That's when her neighbor, Alex Rittberg, stepped in to help. The Rittbergs' yard is fairly wooded and generates more leaves than any one person can use. Alex Rittberg would bag over 30 large garbage bags of leaves each year. Now he just moves them off his lawn with a tarp and composts them in a wooded portion of his back yard. When Alex heard that Sarah needed brown material, he told Sarah to please take as many leaves as she needed.

During the summer, Sarah rolled her wheelbarrow up Caney Road and filled it with leaves from Alex's yard. "I did most of it when they were on vacation because I didn't want to bother them," she said. The Rittbergs also needed some help getting their compost pile going. Alex stopped bagging his grass several years ago when he bought a recycling lawn mower, so he needed more of the "green stuff." The Rittbergs regularly dumped their table scraps via a large bowl into their compost pile, but it wasn't enough. Instead of bagging his own grass clippings again, which also caused his allergies to flare up, Alex turned to his other neighbor, Ms. Marie Duffy, who was still bagging her grass clippings and putting them out with her regular trash. At a neighborhood party this summer, Alex asked Marie if he could use her grass clippings for his compost pile. And his problem was solved!

So once a week before work in the summer,

Alex goes over to Marie's driveway and picks up a large trash bag full of grass clippings before the yard waste truck arrives, and adds it to his compost pile. It felt a little strange for him at first to take a bag out of someone else's "trash" each week. But as long as it supported recycling, he was soon over his initial hesitation.

The efforts of the Rittbergs, McIlvaines, and Ms. Duffy are a great example of how neighbors can work together to keep their yard waste out of the Cherry Island Landfill. Sarah McIlvaine uses her compost regularly in her garden and even makes a compost tea to fertilize her lawn. "There's no need to buy chemicals to add to your lawn, when you can do it all with organic materials. We don't want to leave the legacy of a giant landfill to our children."

Having a backyard composting pile is only one option people can use to keep their yard waste out of the landfill. You can also take your yard waste to one of the new community yard waste recycling sites, or pay your trash hauler or DSWA a small fee to pick it up for you. But best of all, you can help in your own backyard.

Article by A. Rittberg, TMB



The McIlvaine Family is very Proud of their Composting and Organic Gardening Efforts

**DELAWARE
DEPARTMENT OF
NATURAL
RESOURCES AND
ENVIRONMENTAL
CONTROL**

Secretary John A. Hughes
Deputy Sec. David Small

**DNREC Division of Air and
Waste Management**
89 Kings Highway
Dover, Delaware 19901

Division Director
James D. Werner

Phone: 302-739-9400
Fax: 302-739-5060

Editor: Christina Wirtz
Phone 302-395-2600
christina.wirtz@state.de.us

We're on the web!
www.awm.delaware.gov

**Visit the Site
Investigation and
Restoration Branch
Brownfields Website
at:**

[http://
www.dnrec.state.de.us/
dnrec2000/Divisions/
AWM/sirb/
brownfield.asp](http://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/sirb/brownfield.asp)

**for more Brownfields
information.**



Integrity, Respect and Customer Focus

The Division of Air and Waste Management oversees the handling, transferring and storing of solid and hazardous materials by regulating, monitoring, inspecting, enforcing and responding to emergencies. The Division also implements the state's air monitoring, permitting and compliance programs. The Division's responsibilities include administering air and waste programs including:

- Delaware's Air Quality Section — air monitoring and regulating air emissions.
- Tank Management Branch — maintenance and installation of underground and above ground storage tanks & overseeing cleanup of tanks which may leak.
- Emergency Prevention and Response Branch — preventing industrial accidents, assuring emergency planning and community right-to-know, and responding to environmental emergencies.
- Enforcement Section — the Environmental Protection Officers enforce the state's air, waste and water pollution laws, and participate on DNREC's Environmental Response Team by responding to environmental emergencies.
- Site Investigation and Restoration Branch — remediation of sites contaminated by hazardous substances (Superfund/Brownfields/Voluntary Cleanup Program).
- Solid and Hazardous Waste Management Branch — reuse, recycling, transport and disposal of solid and hazardous waste.

EASY REFERENCE PHONE NUMBERS

24-Hour Report and Spill Notification Line - 1-800-662-8802
Aboveground Storage Tanks - 302-395-2500
Air Quality - Dover Office - 302-739-9402
- New Castle Office - 302-323-4542
Asbestos - New Castle - 302-323-4542
- Kent & Sussex - 302-739-9402
Boiler Safety - 302-744-2735
Brownfields - 302-395-2600
Emergency Prevention and Response - 302-739-9404
Environmental Crimes Unit - 302-739-9401 or 1-800-662-8802
Hazardous Waste - 302-739-9403
Medical Waste - 302-739-9403
Open Burning - 302-739-9402
Outreach Ombudsman - 302-395-2515
Recycling - 302-739-9403
Investigation & Restoration Branch (Superfund/Brownfields) - 302-395-2600
Solid Waste - 302-739-9403
Underground Storage Tanks - 302-395-2500

DID YOU KNOW?

The Division's Emergency Response Team participated in a Special Duty detail on February 3, for Senator Barak Obama's Presidential campaign stop in Delaware. The team assisted the Delaware State Police's Explosive Ordinance Disposal Unit stationed in the New Castle area. The ERT's main mission for this Special Duty was to provide on-site response capabilities for any hazardous materials or chemical, biological, radiological, or nuclear weapon incidents.